

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

**EP 0 918 257 A3**

(12)

**EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
19.01.2000 Bulletin 2000/03

(51) Int. Cl.<sup>7</sup>: G03G 5/05, G03G 5/147,  
G03G 5/07

(43) Date of publication A2:  
26.05.1999 Bulletin 1999/21

(21) Application number: 98121521.3

(22) Date of filing: 13.11.1998

(84) Designated Contracting States:  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU  
MC NL PT SE

Designated Extension States:  
AL LT LV MK RO SI

(30) Priority: 21.11.1997 US 976004

(71) Applicant: Xerox Corporation  
Rochester, New York 14644 (US)

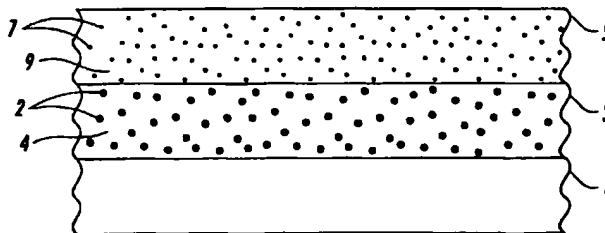
(72) Inventors:  
• Fuller, Timothy J.  
Pittsford, New York 14534-4023 (US)  
• Teuscher, Leon A.  
Williamsville, New York 14221 (US)

• Yanus, John F.  
Webster, New York 14580 (US)  
• Pai, Damodar M.  
Fairport, New York 14450 (US)  
• Carmichael, Kathleen M.  
Williamson, New York 14589 (US)  
• Grabowski, Edward F.  
Webster, New York 14580 (US)  
• Zukoski, Paul F.  
Henrietta, New York 14467 (US)

(74) Representative:  
Grünecker, Kinkeldey,  
Stockmair & Schwanhäusser  
Anwaltssozietät  
Maximilianstrasse 58  
80538 München (DE)

(54) **Imaging members containing high performance polymers**

(57) Disclosed is an imaging member which comprises a conductive substrate, a photogenerating material, and a binder which comprises a polymer of the formulae I, II, III, IV, V, VI, VII, VIII, IX, or X as further defined herein.



**FIG. 1**

**EP 0 918 257 A3**



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 98 12 1521

| DOCUMENTS CONSIDERED TO BE RELEVANT   |   |  |   |
|---|---|--|---|
| Category  | Citation of document with indication, where appropriate, of relevant passages   | Relevant to claim                                    | CLASSIFICATION OF THE APPLICATION (Int.Cl.6)    |
| X   | EP 0 501 455 A (FUJI)<br>2 September 1992 (1992-09-02)<br>* claims 1-8 *  | 1-6  | G03G5/05<br>G03G5/147<br>G03G5/07               |
| X   | ---<br>PATENT ABSTRACTS OF JAPAN<br>vol. 13, no. 73 (P-830) [3421],<br>20 February 1989 (1989-02-20)<br>& JP 63 259571 A (ASAHI),<br>26 October 1988 (1988-10-26)<br>* abstract *         | 1-6  |   |
| X   | ---<br>PATENT ABSTRACTS OF JAPAN<br>vol. 14, no. 158 (P-1027) [4101],<br>27 March 1990 (1990-03-27)<br>& JP 02 013961 A (IDEMITSU KOSAN),<br>18 January 1990 (1990-01-18)<br>* abstract * | 1-6  |   |
| A   | ---<br>PATENT ABSTRACTS OF JAPAN<br>vol. 14, no. 329 (P-1076) [4272],<br>16 July 1990 (1990-07-16)<br>& JP 02 109055 A (KONICA),<br>20 April 1990 (1990-04-20)<br>* abstract *            | 1  | TECHNICAL FIELDS<br>SEARCHED (Int.Cl.6)<br>G03G |
| A   | ---<br>EP 0 458 651 A (MATSUSHITA)<br>27 November 1991 (1991-11-27)<br>* claim 1 *  | 1  |   |
| A   | ---<br>US 3 900 693 A (J.R.WYHOF)<br>19 August 1975 (1975-08-19)<br>* claim 1 *   | 1  |   |
| -----   |   |  |   |
| The present search report has been drawn up for all claims  |   |  |   |
| Place of search<br>THE HAGUE  |   | Date of completion of the search<br>6 September 1999 | Examiner<br>VANHECKE H.                         |
| CATEGORY OF CITED DOCUMENTS<br>X: particularly relevant if taken alone<br>Y: particularly relevant if combined with another document of the same category<br>A: technological background<br>O: non-written disclosure<br>P: intermediate document<br>T: theory or principle underlying the invention<br>E: earlier patent document, but published on, or after the filing date<br>D: document cited in the application<br>L: document cited for other reasons<br>& : member of the same patent family, corresponding document |   |  |   |

EPO FORM 1503 (03.82) (P04C01)



European Patent  
Office

Application Number  
EP 98 12 1521

#### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

#### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:
- 1-7,8(partial,page 227 to page 241),9



European Patent  
Office

LACK OF UNITY OF INVENTION  
SHEET B

Application Number  
EP 98 12 1521

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-7, 8(partial, page 227 to page 241), 9

Imaging member comprising a binder comprising a polymer containing a -phenyl-(-A-)x--phenyl-0-B-0- group (see formulae I to X in claim 1; with A and B as defined on pages 180 to 184)

2. Claim : Claim 8 partial (pages 207 to page 227 (paragraph 1))

Imaging member comprising a binder comprising a polymer containing: -D-0-B-0- groups, wherein B the same as in previous subject and D: a perfluorinated diphenyl-group or a perfluorinated benzophenone group

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 12 1521

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

06-09-1999

| Patent document<br>cited in search report |   | Publication<br>date | Patent family<br>member(s) |            | Publication<br>date |
|---|---|---------------------|----------------------------|------------|---------------------|
| EP 501455                                 | A | 02-09-1992          | JP                         | 4271356 A  | 28-09-1992          |
| JP 63259571                               | A | 26-10-1988          | NONE                       |            |                     |
| JP 02013961                               | A | 18-01-1990          | JP                         | 2676528 B  | 17-11-1997          |
| JP 02109055                               | A | 20-04-1990          | JP                         | 2593348 B  | 26-03-1997          |
| EP 458651                                 | A | 27-11-1991          | JP                         | 4029245 A  | 31-01-1992          |
|   |   |                     | JP                         | 4029246 A  | 31-01-1992          |
|   |   |                     | JP                         | 4029247 A  | 31-01-1992          |
|   |   |                     | JP                         | 4174852 A  | 23-06-1992          |
|   |   |                     | JP                         | 4174853 A  | 23-06-1992          |
|   |   |                     | JP                         | 4174854 A  | 23-06-1992          |
|   |   |                     | DE                         | 69101338 D | 14-04-1994          |
|   |   |                     | DE                         | 69101338 T | 01-09-1994          |
|   |   |                     | US                         | 5304444 A  | 19-04-1994          |
| US 3900693                                | A | 19-08-1975          | US                         | 3865789 A  | 11-02-1975          |
|   |   |                     | JP                         | 936966 C   | 26-12-1978          |
|   |   |                     | JP                         | 50021092 A | 06-03-1975          |
|   |   |                     | JP                         | 53015873 B | 27-05-1978          |

EPO FORM P0458

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

**THIS PAGE BLANK (USPTO)**